



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,310	12/06/2001	Kenichi Nakagawa	1015U-490	4813
466	7590	11/16/2004	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			NGUYEN, THONG Q	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/003,310	Applicant(s) NAKAGAWA ET AL.	
	Examiner Thong Q Nguyen	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-48 is/are pending in the application.
- 4a) Of the above claim(s) 9-20 and 25-36 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-8 and 38-47 is/are allowed.
- 6) ☒ Claim(s) 21-24 and 48 is/are rejected.
- 7) ☒ Claim(s) 37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/2/03 and 10/31/0</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the amendment filed on 1/20/04 and resubmitted on 8/5/2004.
2. It is noted that in the mentioned amendment, applicant has made amendments to the specification, the claims and the drawings. Regarding to the claims, applicant has amended claims 1, 4, 7-8 and 21-23; canceled claim 3 and added a new set of claims, i.e., claims 37-48, into the present application.

A careful review of the device as claimed in the newly-added claims 37-48 has resulted that the device of the newly-added claims has the same scope as that of the elected claims 1-2, 4-8 except the different material used for the color material of the light absorbing layer. Thus, newly-added claims 37-48 are grouped into the species (I) and examined with the claims 1-2, 4-8 and 21-24. Claims 9-20 and 25-36 are still withdrawn from consideration as being directed to non-elected species (II) without any allowable generic claim(s).

Drawings

3. The corrected drawings contain four sheets of corrected figures 1-5 were received on 1/20/2004. These drawings are objected by the examiner for the following reasons.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: The reference "6A" stated in page 12 is not shown in at least one figure. A

Art Unit: 2872

proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Applicant should note that the mentioned objection to the drawings was made in the previous Office action; however, applicant has not made any amendment to the specification and/or the drawings to overcome the objection.

Specification

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

6. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication ***as stated in present pages 37-38 of the present specification*** is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 21-24 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as described in page 3 and shown in figure 4 of the present application in view of Staehle et al (U.S. Patent No. 2,378,252).

The prior art as described in page 3 and shown in figure 4 of the present application discloses a method for making an optical diffusing film (6) having a transparent layer (12), a layer of transparent microspheres (14) formed on one surface of the transparent layer (12), a layer of light absorbing material (20) formed over the transparent layer in a manner that leaves the transparent microspheres partly bare, and a transparent substrate (10) formed on the other surface of the transparent layer (12) opposite to the layer of microspheres. The steps (I-V) as described in the mentioned page meets all of the steps recited in the present claims except the feature relating to the structure of the light absorbing layer. In other words, the prior art does not explicitly state that the step of treating the light absorbing material having a color material to convert the light absorbing material to a layer of fine metal particles by a treating step of the light absorbing layer.

The use of a light control film having a transparent layer supporting a layer of spheres on one surface thereof and a layer of light absorbing material formed over the transparent layer in a manner that leaves the transparent microspheres

partly bare wherein the material is a color material convertible to fine metal particles under a treatment step is clearly disclosed in the art as can be seen in the diffusing film provided by Staehle et al. See column 3 and fig. 4, for example. Regarding to the step of treating the solution layer of the color material as recited in the present claim 21 and the use of rubber for the heat conductive flexible sheet as recited in claim 24, such features are inherent or alternatively obvious to one skilled in the art in a process of manufacture the film. The reason for that conclusion is that any product needs a step of treatment for the purpose of stabilizing the formation and the structure. Further, the use of a rubber sheet for transferring heat flow will control the flow of heat and simultaneously prevent the damage to the microspheres/beads under the pressing force of the sheet. It is also noted that the present claim 21 does not provide any limitations relating to the so-called "treating" step so the formation of the light absorbing layer which is made by a layer of thermoplastic material or gelatin containing dark or blue dyes as provided by Staehle et al is considered as a product produced/manufactured under a numbers of conditions. Further, the use of a treatment step on the light absorbing layer to convert it into a layer of fine particles after the step of coating the light absorbing layer on the base layer is disclosed by Staehle et al as can be seen in column 4 in which they discloses: "A layer of said light absorbing medium is coated onto the support 15 and passes into a drying chamber 23 where the solvents are evaporated forming a thermoplastic film." (column 4, lines 16-19). As such, it is clearly that after the

Art Unit: 2872

step of coating the transparent base by a light absorbing layer then the light absorbing layer is treated by a treating step so that the layer of fine particles is obtained.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the diffusing film provided by the prior art by using a light absorbing layer made by color material convertible to fine particles as suggested by Staehle et al for the purpose of increasing the ability of absorbing light and maintaining the shape of the microspheres/particles.

Allowable Subject Matter

9. Claims 1-2, 4-8 and 38-47 are allowed over the cited art.
10. Claim 37 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
11. The following is a statement of reasons for the indication of allowable subject matter:

The diffusing film as recited in each of claim 1, claim 37 and claim 38 is patentable with respect to the cited art by the limitation relating to the type of material used for the light absorbing layer. In particular, while a diffusing film having a transparent layer, a diffusing layer having microspheres formed on one surface of the transparent layer, a light absorbing layer formed on the mentioned surface for holding the microspheres and for absorbing unnecessary light, and a transparent base layer formed on other surface of the transparent layer is known

Art Unit: 2872

in the art; however, the art does not disclose that the light absorbing layer comprises color material made by silver behenite as claimed in each of claims 1 and 37 or the material of organometallic salt as recited in claim 38.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

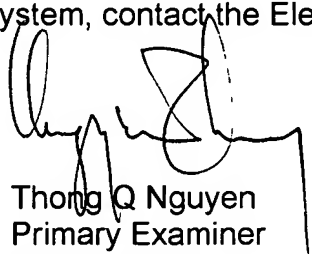
13. This application contains claims 9-20 and 25-36 which are drawn to an invention nonelected in the election of 10/21/2003. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Art Unit: 2872

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q Nguyen
Primary Examiner
Art Unit 2872
